

Principles and Parameters Theory captures this bridge between sound and meaning through the technical constructs Phonetic Form, realized as sound sequence, and Logical Form, representations of certain aspects of meaning, connected via the computational system.

Phonetic Form and Logical Form have their own natures, for which distinct Phonetic Form and Logical Form components are needed within the model. They form the contact between the grammar and other areas.

Phonetic Form and Logical Form constitute the “interface” between language and other cognitive systems.

The central linguistic problem is how the child acquires the elements of the computational system. Phonetic Form and Logical Form are treated as incidentals to the main theme of syntax.

A key aspect has been their “syntactocentrism”. Syntax has always been the key element of knowledge of language. Perhaps this is why the word “grammar” is often extended in Chomskyan theories to encompass the whole knowledge of language in the individual’s mind.

The make-up of the computational system is the subject-matter of linguistics. One vital component is the lexicon in the speaker’s mind containing all their vocabulary. This knowledge is organized in “lexical entities” for each word they know.

Each lexical entry in the mental lexicon contains a mass of information about how the word behaves in sentences as well as its meaning. Computational system relies upon this mental lexicon.

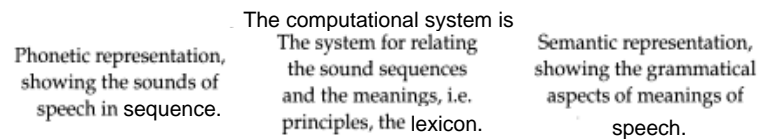
The second vital component in the computational system is the principles of UG. Knowledge of language is based upon a core set of principles embodied in all languages and in the minds of all human beings.

The differences between languages amount to a limited choice between a certain number of variable, called parameters.

Principles apply across all areas of language and they are employed wherever they are needed. Knowledge of language doesn’t consist of rules but of underlying

principles from which individual rules are derived. The concept of the rule had now been minimised. The basic assumption of the Phonetic and Logical model is that languages have no rules at all.

A language is not a system of rules, but a set of specifications for parameters in an invariant system of principles of UG.



#### The computational system:

provides the link between:

*sounds*: the physical production of language (sensorimotor system)

and

*meanings*: the mental representation of meaning (conceptual-intentional system).

via

*Phonetic Form* (how the abstract phonological representation gets a pronunciation)

and

*Logical Form* (how the abstract syntactic representation gets a meaning)

relying on:

*the lexicon* which stores all the properties of words

and

*principles* which dictate what structures can be used.

General ideas of language.

Chomsky’s distinguished **external language** from **internal language**.

#### External LANGUAGE.

Aims to collect sample of language and then to describe their properties.

Its approach collects sentences “understood independently of the properties of the mind”.

The linguistic’s task is to bring order to the set of external facts that make up the language.

External language, if it exists at all, is derivative, remote from mechanisms and of no particular empirical significance, maybe none at all.

Approach includes not only theories that emphasize the physical manifestation of language but also those that treat language as a social phenomenon, as a collection of action or behaviours of some sorts.

It concentrates on social behaviour between people rather than on the inner psychological world.  
Its approach is that it concerns social rather than mental phenomena.

### Internal Language.

Is concerned with what a speaker knows about language and where this knowledge comes from. It treats language as an internal property of the human mind rather than something external because for Chomsky: language is a system represented in the mind/brain of a particular individual.

Chomsky's theories thus fall within the I-language tradition; they aim at exploring the mind rather than the environment. Linguistics is the study of I-language and the basis for attaining this knowledge.

It is whatever is in the speaker's mind, namely a computational procedure and lexicon.

Internal languages are known by individuals.

To Chomsky, a language is a state of the faculty of language, an internal language, in technical usage.

principles to be all but undetectable in particular languages. UG theory doesn't allow principles to be broken.

One of Chomsky's first influential innovations in Universals.

- Universals consist of principles such as locality.
- Chomskyan universals do not have to occur in all languages, unlike Greenbergian universals.
- No language violates a universal principle (the language simply may not use the principle in a particular context).
- Universals are part of the innate structure of the human mind and so do not have to be learnt (to be discussed later).

Linguistics was a form of representation for phrase structure called a **rewrite rule**. Those rules formally define a set of possible structures which model those of any particular language thus making a grammar of that language.

### The Locality Principle.

**Principles:** these are general conditions that hold for many different constructions. The claim of P&P Theory is that human languages consist of principles with no construction specific rules.

**Locality:** this principle is a property of linguistic processes which restricts their application to a limited part of the sentence. This then forces movements in all languages to be local: they must be short:

## E Language and I Language.

### E Language

is externalized.  
consists of a set of sentences.  
deals with sentences actually produced (corpora).  
describes properties of such data.

is concerned with what people have done.

### I Language

is internalized.  
consists of a system of principles.  
deals with knowledge of potential sentences (intuitions).  
describes the system in an individual's mind.

is concerned with what they could do.

### Linguistic Universals.

Movement plays an important role in Chomskyan theory and is employed to describe a number of constructions ranging from passives to questions.

UG theory doesn't insist all languages are the same; the variation introduced through parameters allows

### Language Acquisition.

### The Language Faculty:

is where the knowledge of language is stored in the individual mind.  
is common to all human beings.

is independent of other faculties such as mathematics.

has unique properties of its own like Locality or recursion not shared with other faculties.

is unique to the human species, at least in the narrow sense.

can be thought of as a 'mental organ' that grows.

States of the Language Faculty.

The language faculty can be thought of as a state of the mind, containing whatever the speaker knows at a particular point in time, the sum of all their knowledge of language: internal language.

The 2 extreme states of the language faculty are the final state when the mind knows a complete internal language, and the initial state when it knows only the principles.

The grammar is a state of the UG, the faculty of language in the human mind, not a product of UG.

In the beginning of language acquisition is the mind of the new-born baby who knows no language, termed the initial (zero) state, containing nothing but UG itself. At the end is the mind of the adult native speaker with full knowledge of the language, including the principles, parameters settings and lexicon. This final state is static; the speaker may become more or less efficient at using language or may add or lose a few vocab items.

The initial state changes under triggering and shaping effect of experience, and internally determined processes of maturation.

A series of states intervening between the initial state and the steady state, each of them a possible state from the language faculty incorporating a knowledge of principles, parameters and the lexicon. Acquiring language means progressing from not having any language to having full competence. The Language Acquisition Device and levels of adequacy.

The Language Acquisition Device (LAD) is a procedure that operates on experience acquired in an ideal community and constructs from it, in a determinate way, a state of the language faculty.

The LAD conceptualization was a powerful metaphor for language acquisition within UG theory.

Levels of Adequacy.

**Observational adequacy:** faithfulness to the primary linguistic data of adult speech.

**Descriptive adequacy:** faithfulness to the linguistic competence of the native speaker.

**Explanatory adequacy:** faithfulness to the acquisition of linguistic competence.

The UG revision to the LAD model alters the relative importance of the levels of adequacy. Acquisition seldom had a real role in deciding on the right linguistic theory. The UG version with principles and parameters, however, integrated acquisition with the description of grammar by making explanatory adequacy central; the description of the grammar goes hand in hand with the explanation of how it is learnt.

A task for L1 acquirer is to arrive at a linguistic system which accounts for the input, allowing the child to build linguistic representation and to understand and produce language. UG is proposed as part of an innate biologically endowed language faculty, which permits the L1 acquirer to arrive at a grammar on the basis of linguistic experience. UG provides a genetic blueprint, determining what grammar can and cannot be like. UG places requirements on the form of grammars, providing an inventory of possible grammatical categories and features in the broadest sense. UG includes invariant principles that are generally true across language, as well as parameters which allow for variation from language to language.

UG contains L1, as well as adult native speaker knowledge of language. Grammar of children and adults conform to the principles and parameters of the UG. Child acquires linguistic competence in the L1. Properties of the language are mentally represented by means of an unconscious, internalized linguistic system.

UG constitutes the child's initial state ( $S_0$ ) the knowledge that the child is equipped with in advance of input. Primary Linguistic Data (PLD) are critical in helping the child to determine the precise form that the grammar must take.

Parameters of UG are set to values appropriate for the language in question. The child arrives at a steady grammar for the mother tongue ( $S_s$ ).

The language capacity is specific; ability to acquire language is independent of intelligence; the pattern of acquisition is relatively uniform across different children.

UG is motivated by learnability arguments. There is mismatch between the input and the output.

### Parameters of UG

In addition to universal principles, UG includes principles with a limited number of built-in options (settings or values), which allow for crosslinguistic variation. Such principles are known as parameters. Most parameters are assumed to be binary, that is, they have only two settings, the choices being predetermined by UG. L1 acquisition consists, in part, of setting parameters.

Develops similarly to other biological functions.

3 potential sources of crosslinguistic variation:

Languages can differ as to which functional categories are realized in the grammar.

The features of a particular functional category can vary from language to language.

Features are said to vary in strength: a feature can be strong in one language and weak in another, with a range of syntactic consequences.

The lexicons of different languages vary as to which functional categories and features are instantiated and what the strength of various features may be.

Behaviorism:

Children acquire language through intonation and practice.

The quality of the language the child hears plus the reinforcement offered between other shape the child's language behaviour.

Intonation: word-for-word. Retention.

Practice: repetitive manipulation of form.

Environment.

Innatist, Nativist:

Children are biologically programmed for language they don't have to be taught they are born with a specific innate ability to discover for themselves the rules of language.

The environment makes only a basic contribution.

The rest can be found in the UG.

Cognitivist:

The developing cognitive understanding is built the interaction between the child and the things that can be observed or manipulated.

Cognitive development.

Experience.

Interactionist:

Language develops from social interaction. In a supportive interaction environment children are able to advance to higher levels of knowledge and performance.